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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,684	06/27/2001	Sheng-Chang Peng	JCLA6420-CIP	7184

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EXAMINER

PHAN, RAYMOND NGAN

ART UNIT

PAPER NUMBER

2111

DATE MAILED: 03/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/894,684

Applicant(s)

SHENG-CHANG PENG

Examiner

Raymond Phan

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15-19 is/are rejected.
- 7) ☒ Claim(s) 20-22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 6) ☐ Other: _____.

Part III DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-22 are pending.
2. The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2111.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 15-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Olarig et al. (US No. 5,937,173) in view of Beukema et al. (US No. 6,185,642).

In regard to claim 15, Olarig et al. disclose method for transmitting data on a PCI bus, in a computer comprises a plurality of masters and a host bridge coupled to the PCI bus, said PCI bus having a plurality of bus request signals and a plurality of bus grant signals (see figure 6, col. 14, lines 32-61), determining

whether individual master supports the 66Mhz device or 33Mhz device on the PCI buses while starting up the computer (see figure 5A, col. 13, line 49 through col. 14, line 25); and asserting the corresponding bus request signal of individual master supporting the determined connector (see figure 5A, col. 13, line 49 through col. 14, line 61). But Olarig et al. do not specifically disclose the step of detecting the individual masters supporting a dual transmission mode. However Beukema et al. disclose the step of detecting step of detecting the individual masters supporting a dual transmission mode by the pin configurations (see col. 5, line 4 through col. 6, line 61). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Beukema et al. within the system of Olarig et al. because it would allow the computer system to utilize more than two of the higher data throughput (i.e. bandwidth).

In regard to claim 16, Beukema et al. disclose judging whether the corresponding master corresponding to one of the bus request signals supports the dual transmission mode according to said corresponding bus request signal (see col. 6, lines 17-61); outputting a dual mode ID when the dual transmission mode is required (see col. 6, lines 17-61); and activating the dual transmission mode in response to the dual mode ID (see col. 6, line 17 through col. 7, line 12). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Beukema et al. within the system of Olarig et al. because it would allow the computer system to utilize more than two of the higher data throughput (i.e. bandwidth).

In regard to claim 17, Beukema et al. disclose wherein the detecting step comprises: comparing a vendor's ID and a device ID of the individual master with

a status list to determine whether the individual master supports the dual transmission mode (see col. 6, lines 17-61). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Beukema et al. within the system of Olarig et al. because it would allow the computer system to utilize more than two of the higher data throughput (i.e. bandwidth).

In regard to claim 18, Beukema et al. disclose further comprising: programming a host bridge in response to the masters supporting the dual transmission mode (see col. 6, lines 17-61). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Beukema et al. within the system of Olarig et al. because it would allow the computer system to utilize more than two of the higher data throughput (i.e. bandwidth).

In regard to claim 19, Beukema et al. disclose wherein the dual mode ID is determined in response to two least significant bits of an address signal (see col. 6, lines 17-61). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Beukema et al. within the system of Olarig et al. because it would allow the computer system to utilize more than two of the higher data throughput (i.e. bandwidth).

Allowable Subject Matter

6. Claims 1-14 are allowable over the prior of records.
7. The following is an Examiner's statement of reasons for the indication of allowable subject matter: Claims 1, 8 are allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the

prior art, found any motivation to combine any of the said prior arts which teach a multiplexer, coupled to the high-bit transmitting buffer and the low-bit transmitting buffer and receiving an internal bus clock, wherein the multiplexer alternatively outputs the high-bit transmitting data or the low-bit transmitting data to the PCI bus in response to a high potential level and a low potential level of the internal bus clock; wherein the strobe generator uses either a bus grant signal pin or a bus request signal pin as an output pin to transmit the data strobe signal.

The remaining claims, not mentioned, are allowed for the same reason from the parent claims as dependency.

8. Claims 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is an Examiner's statement of reasons for the indication of allowable subject matter: Claims 20-21 are allowable over the prior art of record because the Examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of the said prior arts which teach wherein the two least significant bits of the address signal are configured as 2 (claim 20); performing a memory access at a dual speed while accessing in a range of a memory space supporting the dual transmission mode (claim 21).

The remaining claim, not mentioned, is allowed for the same reason from the parent claim as dependency.

Conclusion

10. Claims 15-19 are rejected. Claims 1-14 are allowed. Claims 20-22 are objected.

11. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

Humphrey (US No. 6,137,849) discloses a system and method for communicating data over a high-speed bus.

Nuhn et al. (US No. 5,220,561) disclose a data transfer between high bit rate buses via unshielded low bit rate bus.

Iachetta, Jr. (US No. 5,727,171) discloses a method and apparatus for allowing multi-speed synchronous communications between a processor and both slow and fast computing devices.

Frank (US No. 5,255,376) discloses a method and apparatus for supporting a dual bit length protocol for data transfers.

Bell (US No. 5,828,865) discloses a dual mode bus bridge for interfacing a host bus and a personal computer interface bus.

Olson et al. (US No. 6,484,222) disclose a system for incorporating multiple expansion slots in a variable speed peripheral bus.

Kerstein et al. (US No. 6,393,548) disclose a variable 16 or 32 bit PCI interface which supports steering and swapping of data.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (703) 306-2756. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

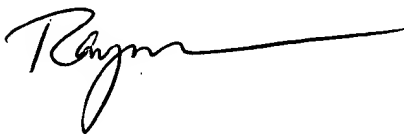
If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary, Paul Myers can be reached on (703) 305-9656 or via e-mail addressed to paul.myers@uspto.gov. The fax phone number for this Group is (703) 872-9306.

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Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

A handwritten signature in black ink, appearing to read 'Raymond', followed by a long horizontal line extending to the right.

Raymond Phan

3/3/04